



Navy S&T Investment Overview

R&D Industry Partnership Conference

Washington, DC

27 July 2005

CAPT J.C. Kamp

Assistant Chief of Naval
Research



Overview

- Some History
- Example research areas
- Opportunities



Naval Research: An Enduring and Evolving Mission

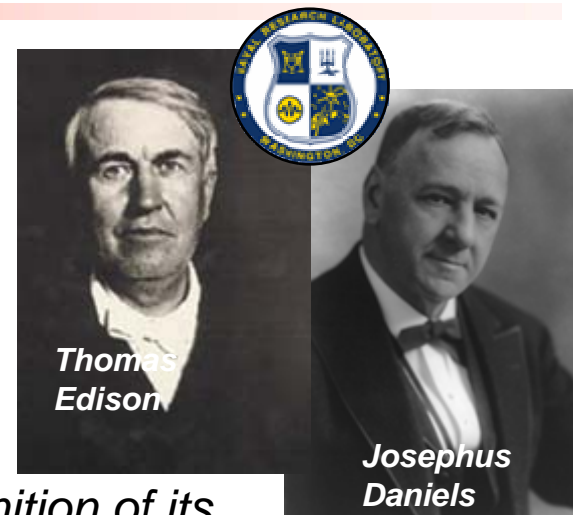
Naval Research Laboratory (Appropriations Act, 1916):

"[Conduct] exploratory and research work ... necessary... for the benefit of Government service, including the construction, equipment, and operation of a laboratory...."



Office of Naval Research (Public Law 588, 1946):

"... plan, foster, and encourage scientific research in recognition of its paramount importance as related to the maintenance of future naval power, and the preservation of national security...."

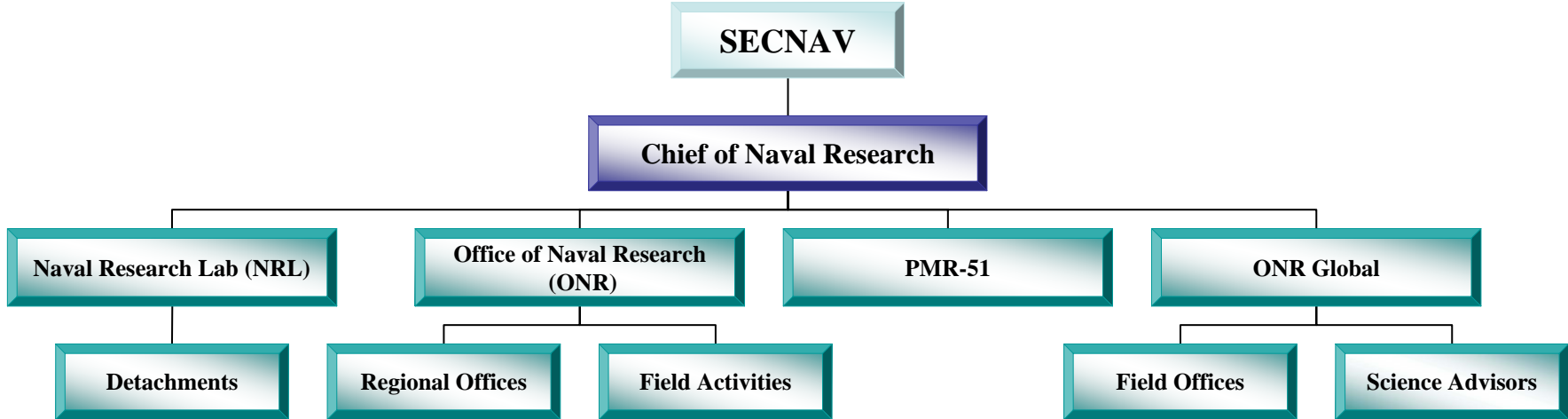


Transitioning S&T (Defense Authorization Act, 2001):

"...manage the Navy's basic, applied, and advanced research to foster transition from science and technology to higher levels of research, development, test, and evaluation."



ONR Organization





Naval S&T in Context: FY 2006 President's Budget

Secretary of the Navy

\$126B

Assistant Secretary of the Navy
Research, Development and Acquisition

Research and Development

18.0B

Acquisition

31.3B

VCNO & ACMC

1.8B

Office of Naval
Research

Naval Research Lab

PEOs, Systems
Commands,
Warfare Centers

16.2B

Basic Research

Applied Research

Advanced Tech.
Development

Test & Evaluation

DEM/Val

EMD

Op. Systems Development

12 Program
Executive Officers

5 Direct Reporting
Program managers

6 Systems Commands

Warfare Centers

54 Major Program
managers

467 Program
managers

Aircraft carriers

Combat ships

Submarines

Aircraft

Weapons systems

Ammunition

Combat boots

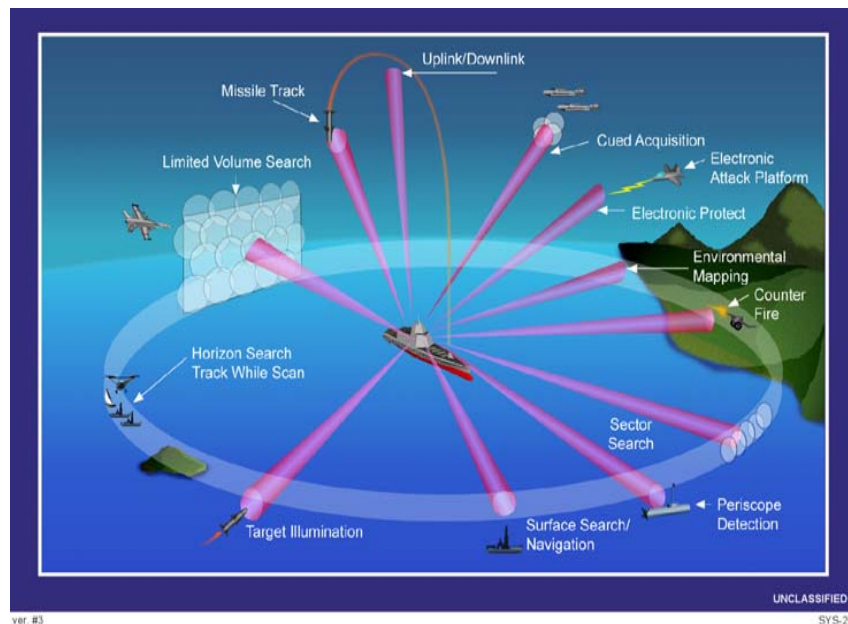


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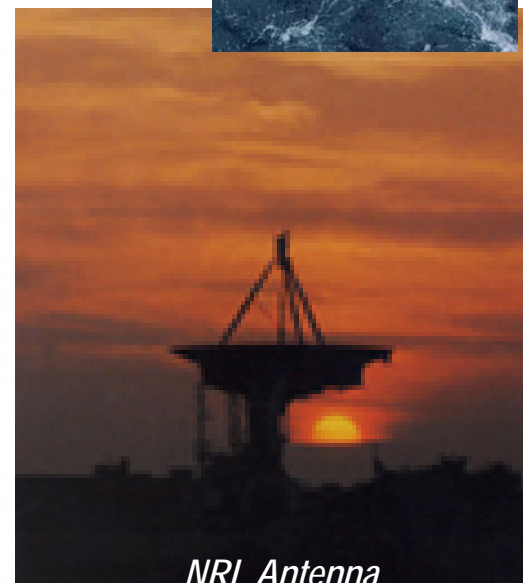
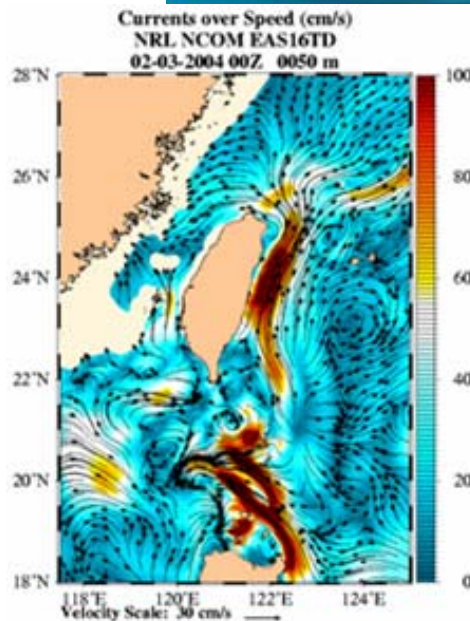
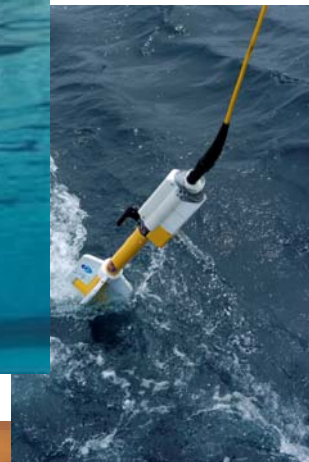
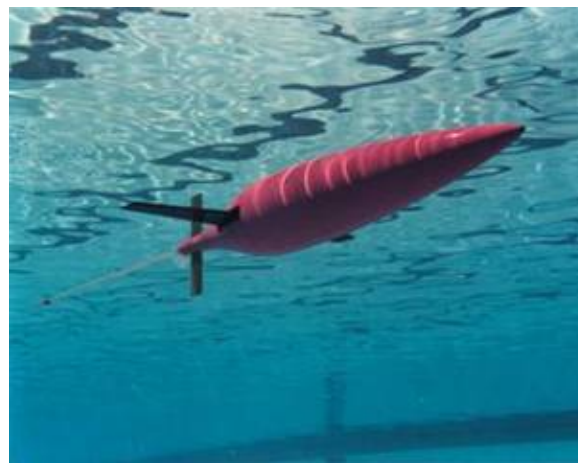
Information, Electronics and Surveillance (Code 31)

- Surveillance capabilities, communications, command and control
- New concepts for electronic devices
- Application of information sciences to complex problems including human-computer interaction
- Electronic warfare



Ocean, Atmosphere, and Space (Code 32)

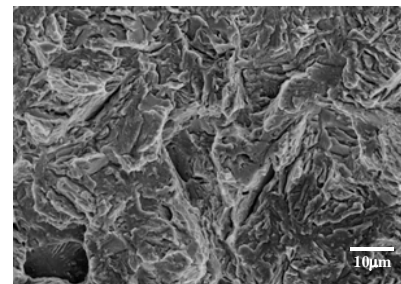
- Battlespace Environments - (BSE)
- Anti-Submarine Warfare - (ASW)
- Mine Warfare - (MIW)
- Naval Special Warfare/Explosive Ordnance Disposal
- Advanced Force Operations





Engineering, Materials, and Physical Sciences (Code 33)

- Chemistry
- Physics
- Structural & functional materials
- Structural, solid, & fluid mechanics
- Propulsion
- Energetics
- And hull, mechanical, & electrical systems



Human Systems (Code 34)

- Exploration programs at the leading edge of medical science
- Human performance
- Biotechnology
- Training and human factors
- Neural information processing
- Biorobotics





Naval Expeditionary Warfare (Code 35)

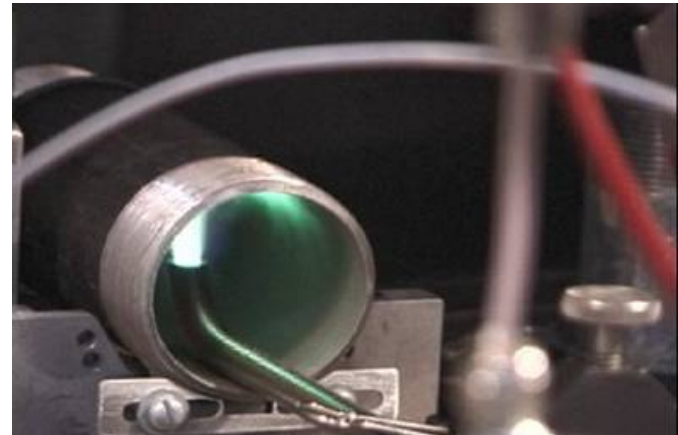
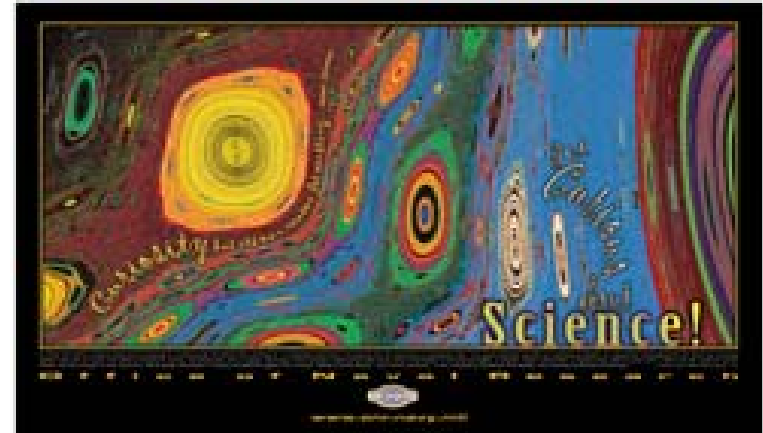
- Aeronautics, avionics
- Propulsion, ballistics, warheads
- Missile guidance, seekers
- Parallel distributed processing
- Technology programs particularly associated with Marine Corps/ground combat applications





Industrial and Corporate Programs (Code 36)

- Interdisciplinary S&T
- Workforce renewal
- Industrial/academic outreach



S&T Support to USMC in Iraq

- Challenges:
 - Improvised Explosive Devices (IEDs)
 - Persistent surveillance
 - Weapons location
 - Helicopter operations
 - Language support



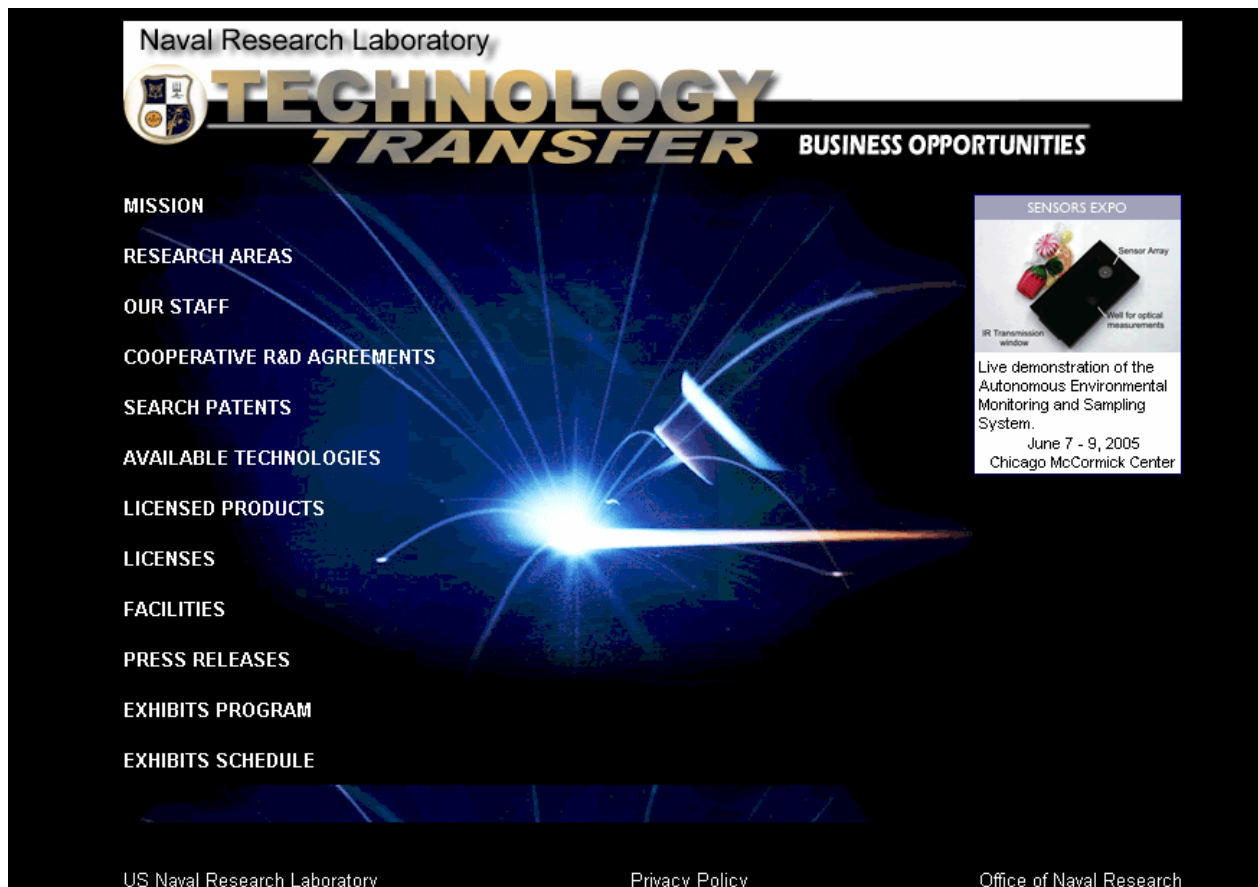


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NRL Tech Transfer

The screenshot shows the homepage of the Naval Research Laboratory's Technology Transfer website. The background is a dark blue space-themed image with a bright light source and radiating lines. On the left, a vertical list of navigation links is displayed. At the top right, the text 'Naval Research Laboratory' is followed by a large 'TECHNOLOGY TRANSFER' title and 'BUSINESS OPPORTUNITIES'. A small inset box on the right side features an image of a sensor array and text about a live demonstration at the Sensors Expo. At the bottom, three links are provided: 'US Naval Research Laboratory', 'Privacy Policy', and 'Office of Naval Research'.

Naval Research Laboratory

TECHNOLOGY TRANSFER BUSINESS OPPORTUNITIES

- MISSION
- RESEARCH AREAS
- OUR STAFF
- COOPERATIVE R&D AGREEMENTS
- SEARCH PATENTS
- AVAILABLE TECHNOLOGIES
- LICENSED PRODUCTS
- LICENSES
- FACILITIES
- PRESS RELEASES
- EXHIBITS PROGRAM
- EXHIBITS SCHEDULE

SENSORS EXPO

Sensor Array
Well for optical measurements
IR Transmission window

Live demonstration of the Autonomous Environmental Monitoring and Sampling System.
June 7 - 9, 2005
Chicago McCormick Center

US Naval Research Laboratory Privacy Policy Office of Naval Research

<http://techtransfer.nrl.navy.mil/index.php>



Navy TECHMATCH



DoD ARMY AIR FORCE

Site Search: Go

TECHMATCH

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[Licensable Patents](#)
[Labs](#)
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Welcome to TechMatch. This site is designed to provide valuable information that will help you work more effectively with the DoD community. On this site, you will find Technology Needs, R&D Opportunities, Events, Laboratory Information, and Success Stories. Registered Users will benefit from receiving timely information in their selected technology areas. [Register Now](#)

★ Needs/Opportunities

- Browse TechNeeds
- Search TechNeeds
- Browse SBIR Opportunities
- Browse FedBiz Opportunities
- Search SBIR Opportunities
- Search FedBiz Opportunities

★ Patents

- Browse Patents
- Search Patents

★ Labs

- Browse Laboratories
- Browse RDT&E Facilities
- Search RDT&E Facilities

★ Calendar

- View Calendar Events
- Browse Calendar Events
- Search Calendar Events

★ Success Stories

- Browse Success Stories
- Search Success Stories

★ Related Links

- Browse Related Links



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<http://www.navytechmatch.com/DOD/index.aspx>

8/4/2005

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Other Collaboration Opportunities

- ONRG Adjunct S&E program
 - military (active/reserve)
 - gov't employee
 - IPA
 - gov't contractor
 - grantee

The screenshot shows the 'Office of Naval Research Global' website. The header includes the ONR logo and the text 'Office of Naval Research Global'. The main content area is titled 'Collaboration Opportunities' and lists several programs with links to their guidelines and proposal formats:

- [Adjunct Scientist & Engineers Program Guidelines](#)
Learn how you can become a temporary or part-time member of the ONR Global Team
- [Science and Technology Engagement Program Guidelines and Proposal Format \(Formerly known as Visitor Support Program\)](#)
Learn how ONR Global can assist your R&D efforts in Scientist-to-Scientist collaboration.
- [Conference Support Guidelines and Proposal Format](#)
Learn how ONR Global can assist in supporting your conference/workshop to increase collaboration in R&D/S&T
- Naval International Cooperative Opportunities In Science & Technology Program (NICOP)
 - [US Guidelines](#)
 - [Non US Guidelines](#)
 - [NICOP QUICKLOOK \(NEW\)](#)
 - [NICOP Award History](#)

The left sidebar contains a navigation menu with the following sections:

- HOME
- ONR GLOBAL SEARCH
- ABOUT US
 - Mission
 - History
 - Collaboration Opportunities
 - VSP
 - CSP
 - NICOP
 - Career Opportunities
 - Contact Us
 - Related Links
- FLEET/FORCES DIVISION
 - Fleet/Forces Division Overview
 - Science Advisor Program
 - Reading & Reference List
- SCIENCE & TECHNOLOGY
 - Discipline Teams
 - Regional Offices
 - Events
 - Reports
 - Broad Agency Announcement
- NAVAL RESEARCH ENTERPRISE
 - Overview
 - SEA Portal
 - Reserve Support
 - Tech Solutions

<http://www.onrglobal.navy.mil/about/collaboration.asp>

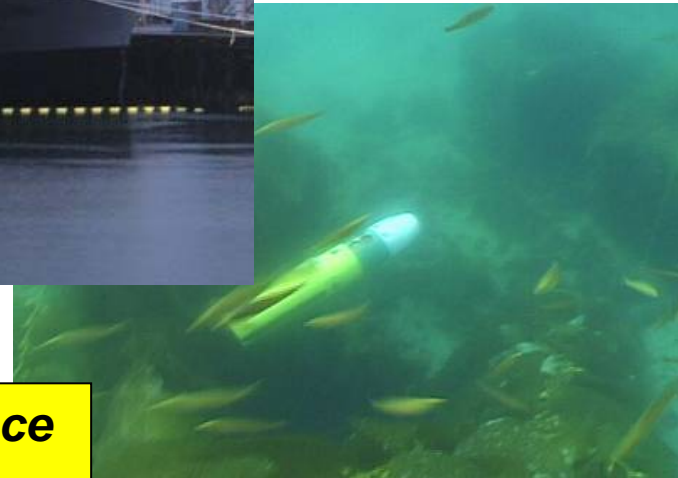
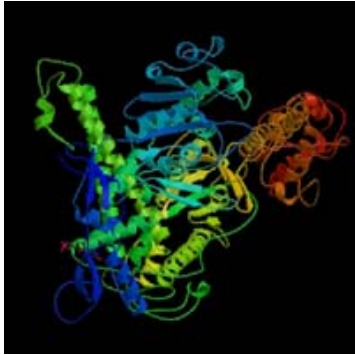


Summary

- Rich history
- Exciting research
- Robust opportunities



Naval Research delivers...



"... scientific research... related to the maintenance of future naval power, and the preservation of national security.... "